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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,815	08/31/2001	Semir S. Haddad	01-S-017 (STMI01-00017)	1411
30425	7590	08/24/2005	EXAMINER	
STMICROELECTRONICS, INC. MAIL STATION 2346 1310 ELECTRONICS DRIVE CARROLLTON, TX 75006			DAVIS, CYNTHIA L	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/943,815

Applicant(s)

HADDAD, SEMIR S.

Examiner

Cynthia L Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 7/11/2005 have been fully considered but they are not persuasive.

Regarding the 35 USC 101 rejection to claims 19-22, the amendment to claim 19 does not change the preamble of the claim, which recites "An MPEG format signal". This is non-statutory subject matter.

Regarding claims 23-24, the claim objections are withdrawn. However, claims 23-24 recite the exact same limitations as claims 11 and 12, and are hence are rejected under 35 USC 103(a). Further, claims 23 and 24 are rejected under 35 USC 101 for the same reasons as claims 19-22.

Regarding applicant's arguments to claims 1-22, the slots of Kulas are equivalent to packets (see Newton's Telecom Dictionary, defining a packet as a "generic term for a bundle of data." The frequency of Intra Frames cited by applicant in Kulas, column 16, lines 28-31, is dependent on the coding rate of the video (Kulas, column 16, lines 25-29), and intra frames may occur more frequently, or be consecutive, at a slower coding rate. Further, Kulas discloses storing location information, while Innoue discloses modifying headers, so the combination of the two renders the claims obvious.

### ***Claim Rejections - 35 USC § 101***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 19-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to an MPEG format signal, which is non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulas in view of Innoue.

Regarding claim 1, an Intra frame indexing device capable of identifying therein data packets associated with Intra frames is disclosed in Kulas, column 16, lines 25-27 (disclosing intra-frame indexing of MPEG data). A first data packet associated with a first Intra frame including location information identifying a storage address of second data packet associated with a second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for other packets). Receiving an incoming MPEG video stream and modifying header information to include the location information in a first data packet associated with a first Intra frame is missing from Kulas. This is disclosed in Innoue, column 2, lines 16-16, and column 3, lines 24-25 (disclosing a DVR that stores an incoming MPEG stream) and column 5, lines 43-48 (disclosing modifying the headers of incoming packets). It would have been obvious to one skilled in the art at the time of the

invention to use the indexing and storage method of Kulas in the DVR device of Innoue, and to put the location information in the header. The motivation would be to reduce access time to the stored media (see the abstract of Kulas) and to put the location information in a place in the packet that will not interfere with its video payload.

Regarding claim 2, said second Intra frame chronologically precedes said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 3, said second Intra frame chronologically follows said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 4, said location information comprises sequence information identifying a location of a video frame sequence containing said second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the second packet's video frame data).

Regarding claim 5, said video frame sequence containing said second Intra frame chronologically precedes a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 6, said video frame sequence containing said second Intra frame chronologically follows a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 7, an Intra frame indexing device capable of identifying therein data packets associated with Intra frames is disclosed in Kulas, column 16, lines 25-27 (disclosing intra-frame indexing of MPEG data).

A first data packet associated with a first Intra frame including location information identifying a storage address of second data packet associated with a second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for other packets). A digital video recorder capable of playing back a recorded television program, a video processor capable of receiving an incoming television program and converting said incoming television program baseband video signal capable of being displayed on a television set coupled to said digital video recorder, and a storage disk capable storing said incoming television program, and an apparatus for implementing special mode playback operations, and receiving an incoming MPEG video stream and modifying header information to include location information in a first data packet associated with a first Intra frame is missing from Kulas. This is disclosed in Innoue, column 2, lines 16-16, and column 3, lines 24-25 (disclosing a DVR with a video processor and storage disk that stores an incoming MPEG stream) and column 5, lines 43-48 (disclosing modifying the headers of incoming packets). It would have been

obvious to one skilled in the art at the time of the invention to use the indexing and storage method of Kulas in the DVR device of Innoue, and to place the location information in the headers of the packets. The motivation would be to reduce access time to the stored media (see the abstract of Kulas), and to put the location information in a place that does not interfere with the packet's video payload.

Regarding claim 8, said second Intra frame chronologically precedes said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 9, said second Intra frame chronologically follows said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 10, said location information comprises sequence information identifying a location of a video frame sequence containing said second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the second packet's video frame data).

Regarding claim 11, said video frame sequence containing said second Intra frame chronologically precedes a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 12, said video frame sequence containing said second Intra frame chronologically follows a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 13, identifying MPEG data packets associated with Intra frames is disclosed in Kulas, column 16, lines 25-27 (disclosing intra-frame indexing of MPEG data). A first data packet associated with a first Intra frame including location information identifying a storage address of second data packet associated with a second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for other packets). Receiving an incoming MPEG video stream and modifying header information to include the location information in a first data packet associated with a first Intra frame is missing from Kulas. This is disclosed in Innoue, column 2, lines 16-16, and column 3, lines 24-25 (disclosing a DVR that stores an incoming MPEG stream) and column 5, lines 43-48 (disclosing modifying the headers of incoming packets). It would have been obvious to one skilled in the art at the time of the invention to use the indexing and storage method of Kulas in the DVR device of Innoue. The motivation would be to reduce access time to the stored media (see the abstract of Kulas) and to include the location information a portion of the packet that will not interfere with the packet's video payload.

Regarding claim 14, said second Intra frame chronologically precedes said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a



doubly linked list format, which would include location information for the previous packet).

Regarding claim 15, said second Intra frame chronologically follows said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 16, said location information comprises sequence information identifying a location of a video frame sequence containing said second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the second packet's video frame data).

Regarding claim 17, said video frame sequence containing said second Intra frame chronologically precedes a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 18, said video frame sequence containing said second Intra frame chronologically follows a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 19, an MPEG format signal comprising a plurality of data packets, said plurality of data packets comprising first data packet associated with a first Intra frame, wherein said first data packet comprising location information identifying a

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location in the plurality of data packets of a second data packet associated with a second Intra frame is disclosed in Kulas, column 16, line 25 (disclosing storage of MPEG) and column 13, lines 17-19 (disclosing storage of the mpeg data in a doubly-linked list, which would include location information for other packets in all the packets in the list). The location information being in a packet header is missing from Kulas. However, MPEG packets with modifiable headers containing information are disclosed in Innoue, column 5, lines 43-48. It would have been obvious to one skilled in the art at the time of the invention to store the location information in the packet header. The motivation would be to have a place to put the location information that would not interfere with the video payload of the packet.

Regarding claim 20, said second Intra frame chronologically precedes said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 21, said second Intra frame chronologically follows said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 22, said location information comprises sequence information identifying a location of a video frame sequence containing said second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked

list format, which would include location information for the second packet's video frame data).

Regarding claim 23, said video frame sequence containing said second Intra frame chronologically precedes a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 24, said video frame sequence containing said second Intra frame chronologically follows a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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